

CLAIMS:

1. A semiconductor memory device comprising:

a voltage level detector configured to generate a power-up signal;

5 a ready/busy driver controller configured to generate a busy enable signal in response to the power-up signal; and

a ready/busy driver that is responsive to the busy enable signal.

2. The device of claim 1, further comprising a command register cooperatively

10 coupled to the ready/busy driver controller.

3. The device of claim 2, wherein the command register comprises:

a program command register configured to provide a program busy signal to the ready/busy driver controller; and

15 an erase command register configured to provide an erase busy signal to the ready/busy driver controller.

4. The device of claim 3, wherein the program busy signal indicates that the memory device is in a program mode.

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5. The device of claim 3, wherein the erase busy signal indicates that the memory device is in an erase mode.

6. The device of claim 1, wherein the ready/busy driver controller comprises:

25 a control signal generator configured to generate a first and a second control signal in response to the power-up signal; and

a level shifter configured to generate the busy enable signal in response to the first and second control signals.

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7. The device of claim 1, wherein the ready/busy driver comprises:

a ready/busy pin;

an open drain driver configured to set a voltage at the ready/busy pin in response to the busy enable signal; and

a pull up load connected to the ready/busy pin.

8. The device of claim 7, wherein the memory device is in a busy state during a power-up period when the voltage at the ready/busy pin is at a low state.

5 9. The device of claim 8, wherein the memory device is in a ready state after the power-up period.

10 10. A method of accessing a semiconductor memory device comprising:
determining if an internal voltage has reached an operational voltage level;
accessing the semiconductor memory device when the internal voltage has reached an operational voltage level.